



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,083	07/27/2000	Brig Barnum Elliott	00-4034	2480
32127	7590	02/18/2005	EXAMINER	
VERIZON CORPORATE SERVICES GROUP INC. C/O CHRISTIAN R. ANDERSEN 600 HIDDEN RIDGE DRIVE MAILCODE HQEO3H14 IRVING, TX 75038			VANDERPUYE, KENNETH N	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/627,083	ELLIOT	
	Examiner	Art Unit	
	Kenneth N Vanderpuye	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32,33,39,49-58 and 61 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-9,12,13,15,17-21,24-27,34-37,40-43,46,47,59 and 60 is/are rejected.
- 7) ☒ Claim(s) 2,5,10,11,14,16,21-23,28-31,38,44 and 45, 48 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 24, 36, 43, 37, 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regards to claims 12, 24, 36, 43, It is not clear what applicant means by the "location area comprises an RF propagation model."

With regards to claims 37, 42 it is not clear what applicant means by "derated radio receive range"

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-7, 13, 18-19, 34-35, 40, 59-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed et al.(6,816,460).

With regards to claims 1, 13, 40, 59-60 Ahmed teaches in a communication system for communicating among a plurality of routers in a network(Fig. 1), the network having at least one node that can receive messages(Fig. 1@205), each of the communication routers including a transceiver to transmit and receive messages(nodes have retransmit capability), a method of operating a first router of the plurality of routers comprising the steps of:

Determining a location area corresponding to the node;(geometry-based routing protocol, see claim 1), formulating a message for the node;(inherently taught) determining a set of routers located within the location area(determining if the destination node is in a local area of nodes, col. 9 lines 39-40) ; and directing the message to the set of routers for retransmission to the node(col. 9 lines 41-48). What Ahmed fails to teach is the destination node being a radio silent node. Official notice is taken that a destination node can be a receiver or a transceiver depending on the need for one-way or two-way communication. Hence it would have been obvious as a matter of design choice.

Claims 3, 17, 41 are rejected because the location area comprises a radio reception area by the node.(Fig. 1@205).

Claims 6-7, 18-19, 47 are rejected because in Fig. 1, a set of routers are within the location area of node 205.

Claims 34-35 are rejected because Ahmed teaches the method comprising the steps:

Determining an advertised position of the radio node; and calculating a location for the node based on the advertised position.(See claim 1, approximate location information). What Ahmed fails to teach is the destination node being a radio silent node. Official notice is taken that a destination node can be a receiver or a transceiver depending on the need for one-way or two-way communication. Hence it would have been obvious as a matter of design choice.

Claim 4, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed at al as applied to claims 1, 13 above, and further in view of Arnold (6,748,233).

With regards to claims 4, 15 , Ahmed fails to teach the location area determined based on a planned trajectory. (col. 5 lines 16-24). It would have been obvious to combine Ahmed with Arnold for the purpose of determining the location of a node. Motivation being to track a node as it changes position.

Claim 8-9, 20-21, 25-27, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed at al as applied to claims 1, 13 above, and further in view of Lee at al.(6,728,777).

With regards to claims 8-9, 20-21, 27, 46, Ahmed fails to teaches the use of multicast routing and forwarding according to multicast routing trees. This is taught by Lee(col. 2 lines 38-48). It would have been obvious to combine Lee with Arnold for the purpose of delivering messages with multicast routing. The motivation being to selectively broadcast a message to a destination node.

Claim 25 is rejected for the same reasons as claims 8-9, 20-21, because the inventive concept is set in a multicast environment which Arnold does not teach. Arnold is set in a unicast environment. Lee teaches multicast routing with the aid of multicast trees. It would have been obvious to combine Lee with Arnold for the purpose of delivering messages with multicast routing. The motivation being to selectively broadcast a message to a destination node.

Claim 26 is rejected because Arnold teaches determining the location of the radio silent node(geometry-based routing protocol, see claim 1).

Allowable Subject Matter

Claims 32-33, 39, 49-58, 61 allowed.

Claims 2, 5, 10-11, 14, 16, 22-23, 28-31, 38, 44-45, 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth N Vanderpuye whose telephone number is 571-272-3078. The examiner can normally be reached on M-F(7:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KNV
2/14/05



KENNETH VANDERPUYE
PRIMARY EXAMINER